

## **Certification Exhibit**

**FCC ID: SDBBHRM100**

**FCC Rule Part: 47 CFR Part 2.1091**

**ACS Project Number: 16-3008**

Manufacturer: Sensus Metering Systems Inc.  
Model: BHRM100

## **RF Exposure**

**General Information:**

Applicant: Sensus Metering Systems, Inc.  
 Device Category: Mobile  
 Environment: General Population/Uncontrolled Exposure

**Technical Information:**

Antenna Type: Patch – magnetic mount  
 Antenna Gain: 2.0 dBi  
 Maximum Transmitter Conducted Power: 29.1 dBm, 813 mW  
 Maximum System EIRP: 31.1 dBm, 1288 mW  
 Exposure Conditions: Greater than 20 centimeters

**MPE Calculation**

The Power Density (mW/cm<sup>2</sup>) is calculated as follows:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = power density (in appropriate units, e.g. mW/cm<sup>2</sup>)

P = power input to the antenna (in appropriate units, e.g., mW)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

| MPE Calculator for Mobile Equipment                  |                   |                                           |                  |                    |                       |               |                                     |
|------------------------------------------------------|-------------------|-------------------------------------------|------------------|--------------------|-----------------------|---------------|-------------------------------------|
| Limits for General Population/Uncontrolled Exposure* |                   |                                           |                  |                    |                       |               |                                     |
| Transmit Frequency (MHz)                             | Radio Power (dBm) | Power Density Limit (mW/Cm <sup>2</sup> ) | Radio Power (mW) | Antenna Gain (dBi) | Antenna Gain (mW eq.) | Distance (cm) | Power Density (mW/cm <sup>2</sup> ) |
| 901                                                  | 29.1              | 0.60                                      | 812.83           | 2                  | 1.585                 | 20            | 0.256                               |

**Installation Guidelines**

The installation manual should contain text similar to the following advising how to install the equipment to maintain compliance with the FCC RF exposure requirements:

**RF Exposure**

In accordance with FCC requirements of human exposure to radio frequency fields, the radiating element shall be installed such that a minimum separation distance of 20 centimeters will be maintained.

**Conclusion**

This device complies with the MPE requirements by providing adequate separation between the device, any radiating structure and the general population.